Andy Beshear
GOVERNOR

TRANSPORTATION CABINET
200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

July 7, 2023

CALL NO. 329
CONTRACT ID NO. 231333
ADDENDUM # 1

Subject: Perry County, FD04 097 0015 012-013
Letting July 20, 2023

(1) Added - Proposal Sheets - Pages 19a-19l of 37

Proposal revisions are available at http://transportation.ky.gov/Construction-Procurement/.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

Rachel Mills,

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:so
Enclosures

GENERAL NOTES

SPECIFICATIONS: All references to the standard specifications are to the 2019 edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction.

All references to the AASHTO Specifications are to the 9th edition of the AASHTO LRFD Bridge Design Specifications.

DESIGN LOAD: Chamber slabs are designed for an assumed weight of fill material of 120 pcf and traffic live load. See Std. Dwg. BSC-006.

DESIGN METHOD: All reinforced concrete members are designed as specified in the current AASHTO Specifications.

DESIGN STRESSES: For Steel Reinforcement fy = 60000 psi;
For Class "A" Concrete f'c = 3500 psi.

MATERIALS: ASTM or AASHTO Specifications as designated below shall govern the materials furnished.

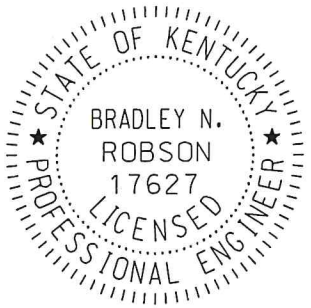
MATERIAL	A.S.T.M.	AASHTO
Structural Steel	A36	
Pintles and stud shear connectors	UNS G 1015	M-169

STUD WELDING: Studs shall be welded in accordance with AWS Specifications.

DROP SHAFT CASING: Provide casing meeting the requirements of ASTM A 252 Grade 2 or better unless otherwise specified. Ensure casing is smooth, clean, watertight, true and straight, and of ample strength to withstand handling, installation, and extraction stresses and the pressure of the surrounding earth materials. Ensure the outside diameter of casing is not less than the specified diameter of shaft.

Use only continuous casings. Cut off the casing at the prescribed elevation and trim to within tolerances prior to acceptance. Extend casing into existing culvert a sufficient distance to stabilize the shaft excavation against collapse, excessive deformation, and/or flow of water if required.

Install from the work platform continuous casing meeting the design thickness requirements, to the elevations shown on the plans. All casing is permanent unless temporary casing is specified in the contract drawings or documents. Remove all temporary casing prior to final acceptance unless otherwise permitted by the Central Office Construction Engineer. Ensure casing splices have full penetration butt welds conforming to the current edition of AWS D1.1 with no exterior or interior splice plates.



Brad Robson

June 28, 2023
DATE

BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S01

GENERAL NOTES – continued

CONCRETE: Class "A" Concrete shall be used throughout.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2" unless otherwise noted. Any reinforcing bars designated by suffix (s) in a bill of reinforcement shall be considered a stirrup for purposes of bend diameters.

BEVELED EDGES: All exposed edges shall be beveled 3/4" unless otherwise shown.

FOUNDATION EXCAVATION & BACKFILL: Ensure that excavation for chamber is in accordance with subsection 603.03.03 of the Specifications, and backfill for the chamber is in accordance with subsection 603.03.04 of the Specifications.

EXISTING CONDITIONS: The contractor shall field verify all dimensions prior to ordering materials, any discrepancies between field measured dimensions and the dimensions specified in the plans shall be reported to the Engineer. Existing culvert dimensions shown are based on Plans, Drawing Number 19218.

COMPLETION OF THE STRUCTURE: The contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor or anything else required to complete the structure. Temporary sheeting, shoring, cofferdams, and/or dewatering methods may be required for the installation of the chamber and footings.

SAFETY: In addition to normal safety provisions, contractor shall cover drilled holes (3' diameter and/or oversized temporary) with steel plates when not actively working at those locations.

SUBMITTALS: Contractor shall submit proposed hardware for safety rail, safety gate, debris screen and frame, fall protection system, manhole frame and casting, and detailed installation procedures for review a minimum of 14 days prior to the desired begin date.

SPECIAL NOTES

STANDARD DRAWINGS

BSC-006	STANDARD CULVERT 14'-0" WIDTH
RDM-011	MAN HOLE TYPE C
RDM-055	MAN HOLE STEPS

GENERAL NOTES – continued

BID ITEMS: Manhole Steps and their installation are incidental to CLASS A CONCRETE bid item.

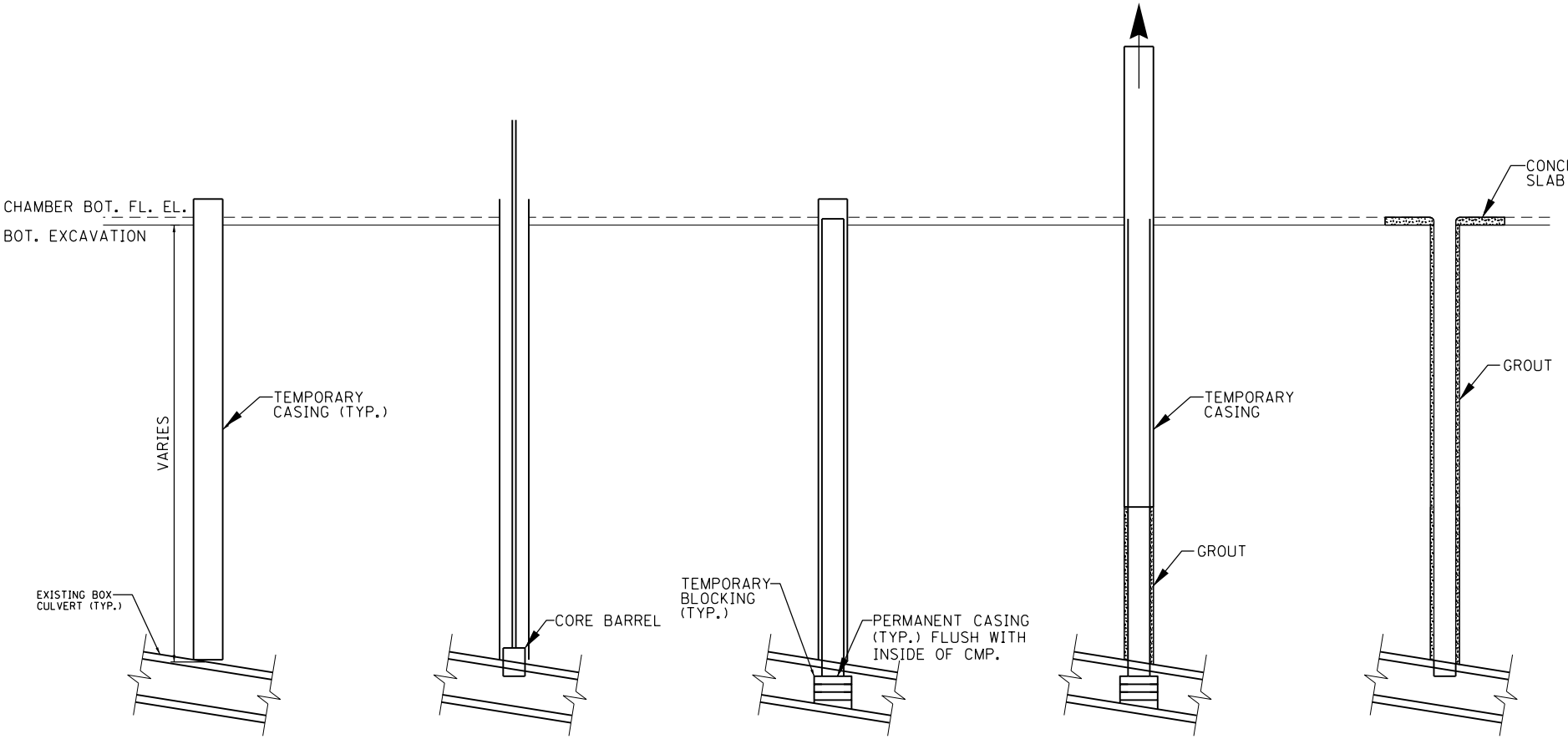
MANHOLE TYPE C MODIFIED bid item includes manhole frame and casting designed for HS20 wheel load. Casting shall be vented and locking. Concrete and reinforcing steel for manhole and riser are included in the Class A Concrete and Steel Reinforcement bid items.

SAFETY RAIL & GATE bid item includes debris Screen and its installation.

DROP SHAFT bid item includes all labor, materials, equipment, etc. to drill down to and through the existing culvert, inspect, seal and repair existing culvert slab as necessary, install drop shafts and PVC vent pipes and attachments as shown in the plans, core pilot holes to determine culvert centerline, temporary casing, temporary supports, grout, permanent casing, shear connectors, and other items necessary to complete the installation.

Any necessary sheeting or shoring shall be incidental to the FOUNDATION PREPARATION bid item.

Contrary to the Specifications, do not construct weep holes in the pipe chamber.



1: INSTALL TEMP CASING, DRILL PILOT HOLE

2: CORE HOLE

3: INSPECT, SEAL, INSTALL DROP SHAFT

4: REMOVE TEMP CASING; GROUT ANNULUS

5: REMOVE BLOCKING

CONCEPTUAL INSTALLATION PROCEDURE:

NOTES: EXISTING REINFORCED CONCRETE BOX CULVERT (RCBC) IS 5' x 5' INSIDE WITH 13" THICK TOP SLAB PER ORIGINAL DESIGN DRAWINGS. IT IS UNKNOWN IF THIS IS THE ACTUAL TOP SLAB THICKNESS.

RCBC WAS RETROFITTED AT SOME POINT IN TIME BY INSERTING AND GROUTING IN PLACE A CIRCULAR CORRUGATED STEEL PIPE.

THIS SHEET DEPICTS A CONCEPT ONLY, OTHER INSTALLATION PROCEDURES COULD BE PREFERRED AND ARE POSSIBLE. CONTRACTOR SHALL SUBMIT PLANNED INSTALLATION PROCEDURE FOR REVIEW AND APPROVAL A MINIMUM OF 14 DAYS PRIOR TO DESIRED BEGINNING.

1. INSTALL OVERSIZED TEMPORARY CASING
   - ROTARY PERCUSSION DRILL OR OTHER SUITABLE EQUIPMENT MAY BE NECESSARY DUE TO BOULDERS IN OVERBURDEN
   - DRILL OPERATOR SHOULD CLOSELY MONITOR DEPTH AND SLOW THE DRILLING WHEN NEARING THE ELEVATION OF THE EXISTING CULVERT
   - ONCE TEMPORARY CASING IS INSTALLED, DRILL SMALL HOLE THROUGH TOP SLAB. USE THIS HOLE TO LOCATE ℄ OF BOX CULVERT FOR ALIGNING CORE BARREL TO ℄ OF BOX CULVERT.

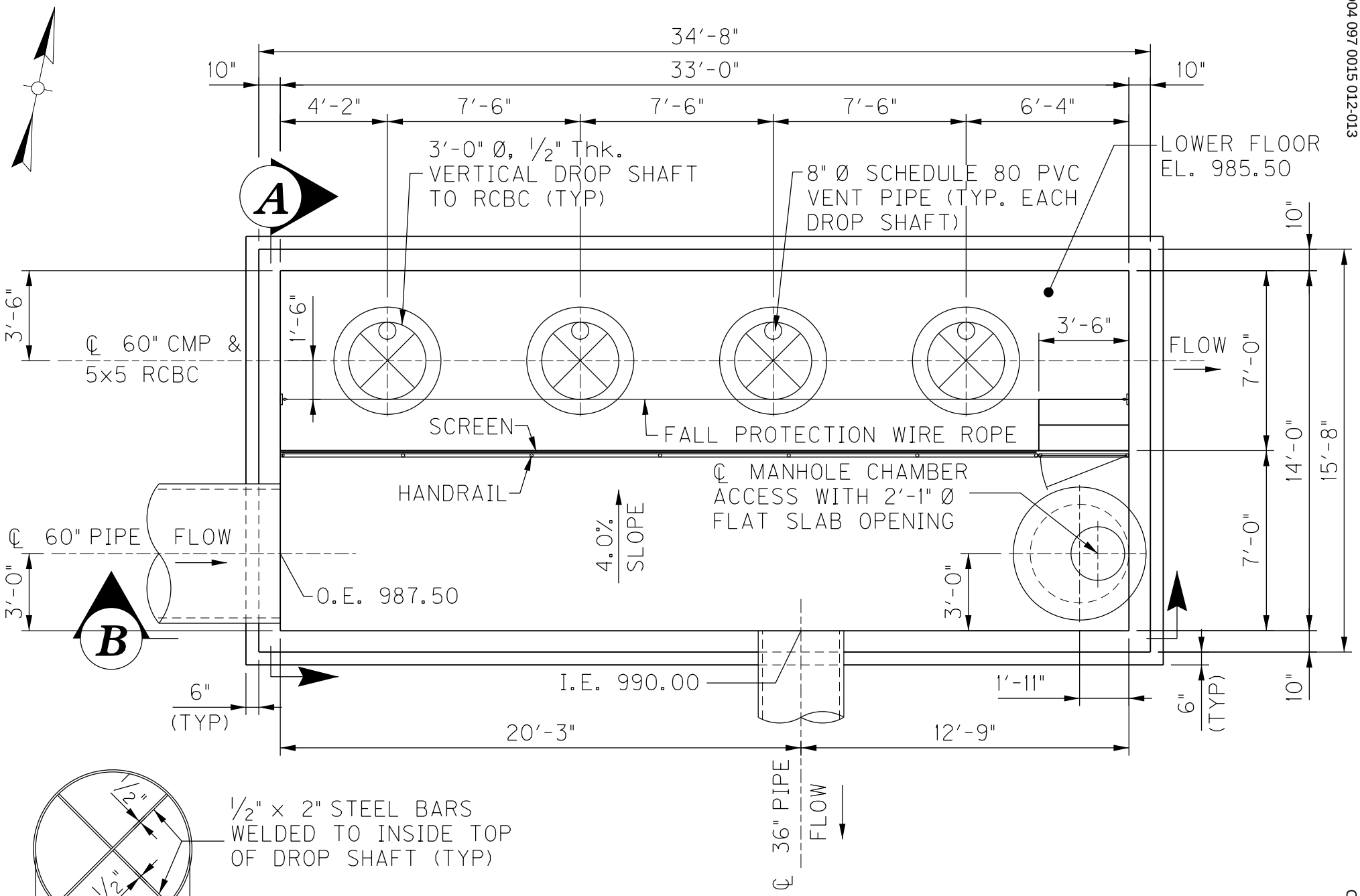
2. SWITCH TO CORE BARREL OR OTHER SUITABLE DRILLING EQUIPMENT
   - SLOWLY CORE THROUGH EXISTING CULVERT TOP SLAB AND GROUTED-IN CORRUGATED STEEL PIPE
   - IT SHOULD BE NOTED THAT THE EXISTING CULVERT IS ON A 16% GRADE SO HIGH SIDE OF 36" DIAMETER HOLE WILL BE ABOUT 5.75 INCHES VERTICALLY ABOVE THE LOW SIDE.
   - SMOOTHLY CORE THROUGH AT SLOW SPEED TO PREVENT PUNCH-THROUGH DAMAGE TO THE INSIDE OF THE TOP SLAB

3. INSPECT & SEAL CULVERT PENETRATION; INSTALL DROP SHAFT
   - INSPECTION OF CORED HOLE SHALL BE DONE BY A LICENSED PROFESSIONAL ENGINEER IN KENTUCKY, WITH STRUCTURAL DESIGN EXPERIENCE.
   - REPAIR ANY DAMAGE TO THE EXISTING CULVERT TO THE SATISFACTION OF THE ENGINEER.
   - SEAL ALL CUT REINFORCING STEEL IN TOP SLAB WITH AN APPROVED CORROSION PREVENTING SEALER
   - INSTALL DROP SHAFT WTIH VENT SUPPORTED ON TEMPORARY BLOCKING FROM BELOW.
   - SEAL DROP SHAFT TO TOP SLAB JOINT
   - RE-INSPECT FROM CULVERT LEVEL

4. REMOVE TEMPORARY CASING
   - INJECT GROUT IN ANNULUS BETWEEN TEMPORARY CASING AND DROP SHAFT AS CASING IS WITHDRAWN
   - INSTALL SHEAR CONNECTORS ON TOP OF DROP SHAFT AND CAST INTO BOTTOM SLAB OF NEW CONCRETE CHAMBER

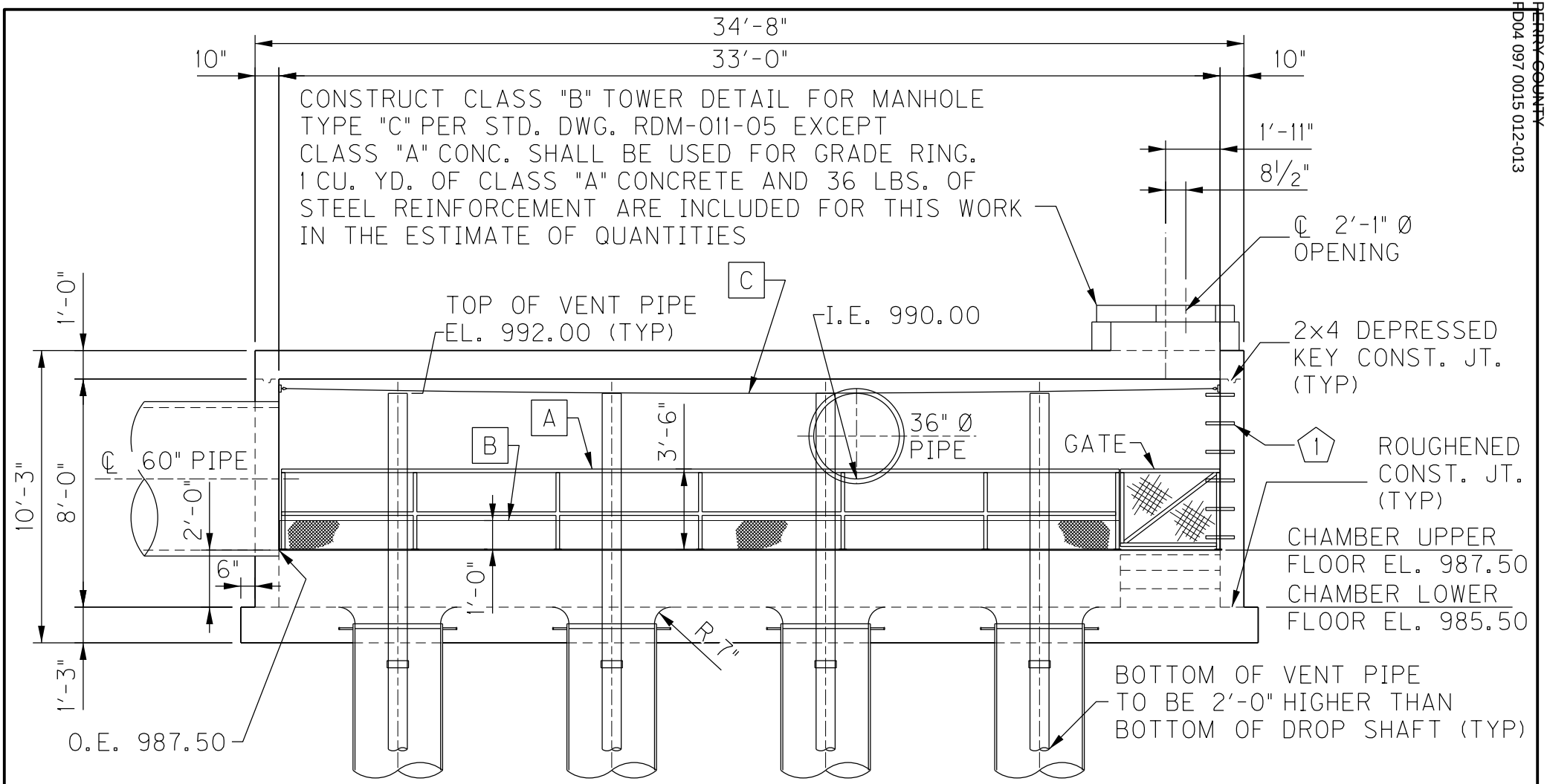
5. REMOVE BLOCKING AFTER BOTTOM SLAB REACHES 3500 PSI.

BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S04



PLAN OF PIPE CHAMBER

BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S05



A GALVANIZED SAFETY RAILING SHALL BE PERMANENT FLOOR MOUNTED BY SAFETY RAIL COMPANY, OR EQUIVALENT. SAFETY GATE SHALL BE SRC ADJUSTABLE SELF CLOSING GALVANIZED GATE BY SAFETY RAIL COMPANY, OR EQUIVALENT.

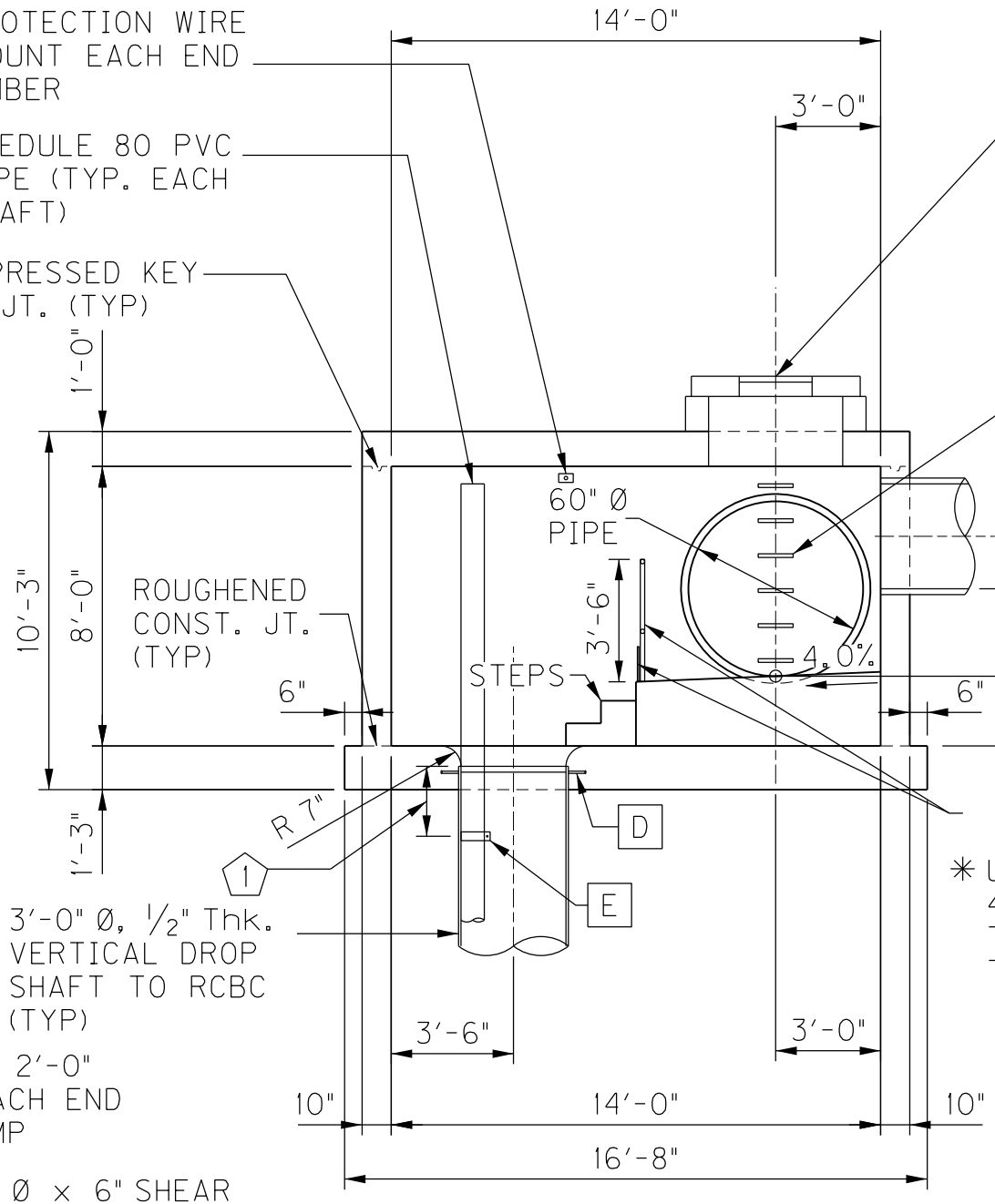
B TYPE 304 STAINLESS STEEL WIRE DEBRIS SCREEN WIRE SHALL BE 0.187" OR LARGER DIAMETER WITH GRID SPACING OF 3" x 3". SCREEN SHALL INCLUDE A CORROSION RESISTANT FRAME AND BE ATTACHED TO SAFETY RAILING AND SAFETY GATE AND FIT TIGHT TO TOP OF UPPER FLOOR.

C TYPE 304 STAINLESS STEEL WIRE ROPE FALL PROTECTION LIFELINE. SYSTEM TO BE DESIGNED TO MEET ALL OSHA FALL PROTECTION REQUIREMENTS. LOCATION SHALL BE REACHABLE FROM STANDING BEHIND SAFETY RAIL/GATE ON UPPER FLOOR. THE ENGINEER SHALL APPROVE THE LOCATION BEFORE INSTALLATION.

1 MANHOLE STEPS SEE STD. DWG. RDM-055 (INCIDENTAL TO CLASS "A" CONCRETE)

SECTION "B"

BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S06



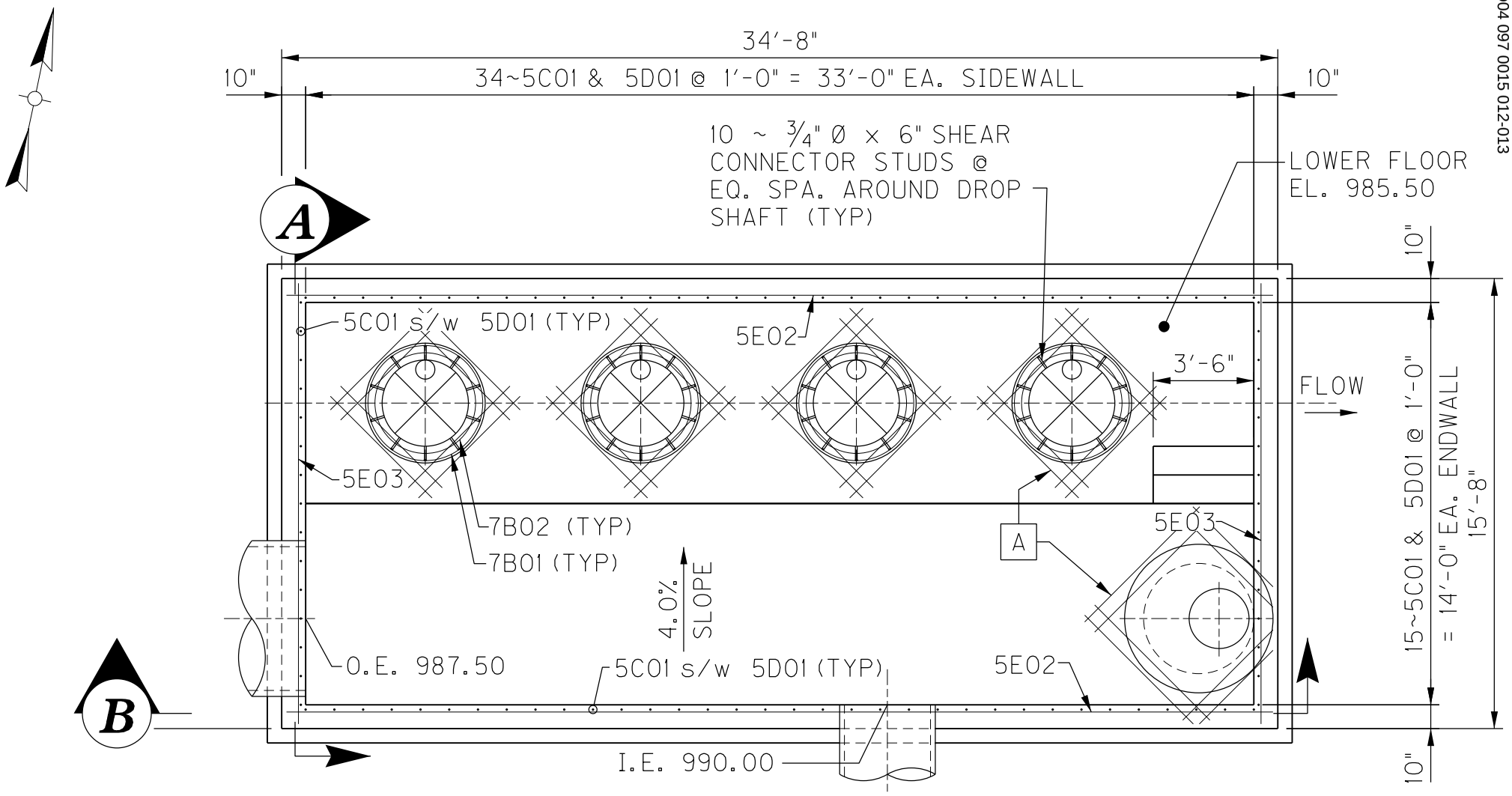
1 APPROX. 2'-0" FROM EACH END TO CLAMP

D 10 ~ 3/4" Ø × 6" SHEAR CONNECTOR STUDS @ EQ. SPA. AROUND DROP SHAFT (TYP)

E RISER CLAMP ATTACHED TO DROP SHAFT. USE A MINIMUM OF 4 RISER CLAMPS EQUALLY SPACED TO SECURE VENT PIPE INSIDE SHAFT. CLAMPS AND HARDWARE SHALL BE ASTM A153 GALVANIZED OR HAVE OTHER CORROSION PROTECTION, WITH APPROVAL OF THE ENGINEER.

SECTION "A"

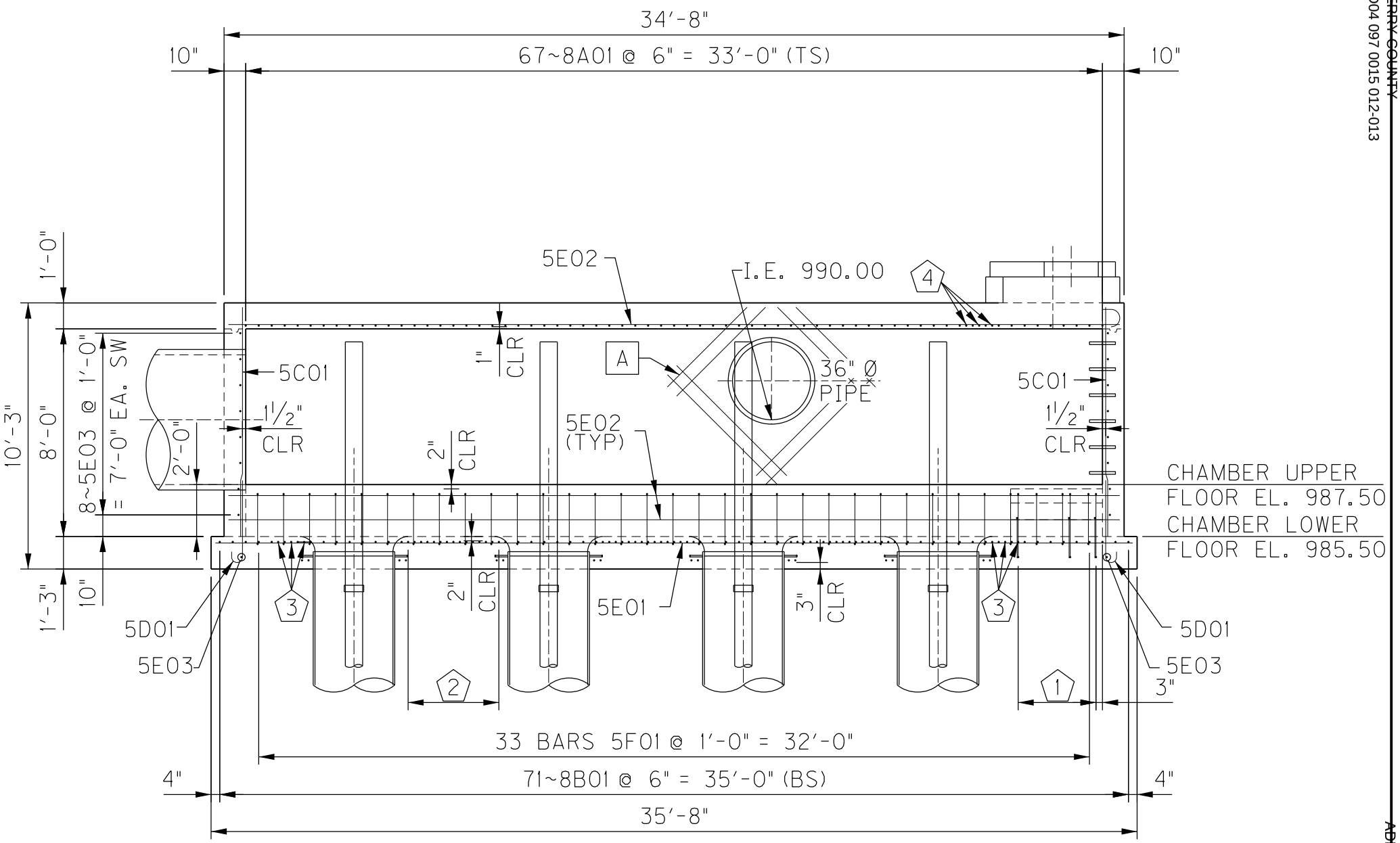
BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S07



A SEE DETAIL FOR ADDITIONAL REINFORCEMENT AT PIPE OPENINGS

PLAN OF PIPE CHAMBER

BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S08



A SEE DETAIL FOR ADDITIONAL REINFORCEMENT AT PIPE OPENINGS

TS - TOP SLAB
BS - BOTTOM SLAB
SW - SIDEWALL

1 4 5F02 AND 5F03 @ 1'-0" = 3'-0" (STEPS)

2 8~8B02 SPA. BETWEEN 8B01 (TYP BTWN. DROP SHAFTS)

3 3~8B02 SPA. BETWEEN 8B01 (TYP OUTSIDE OF EXTERIOR DROP SHAFTS)

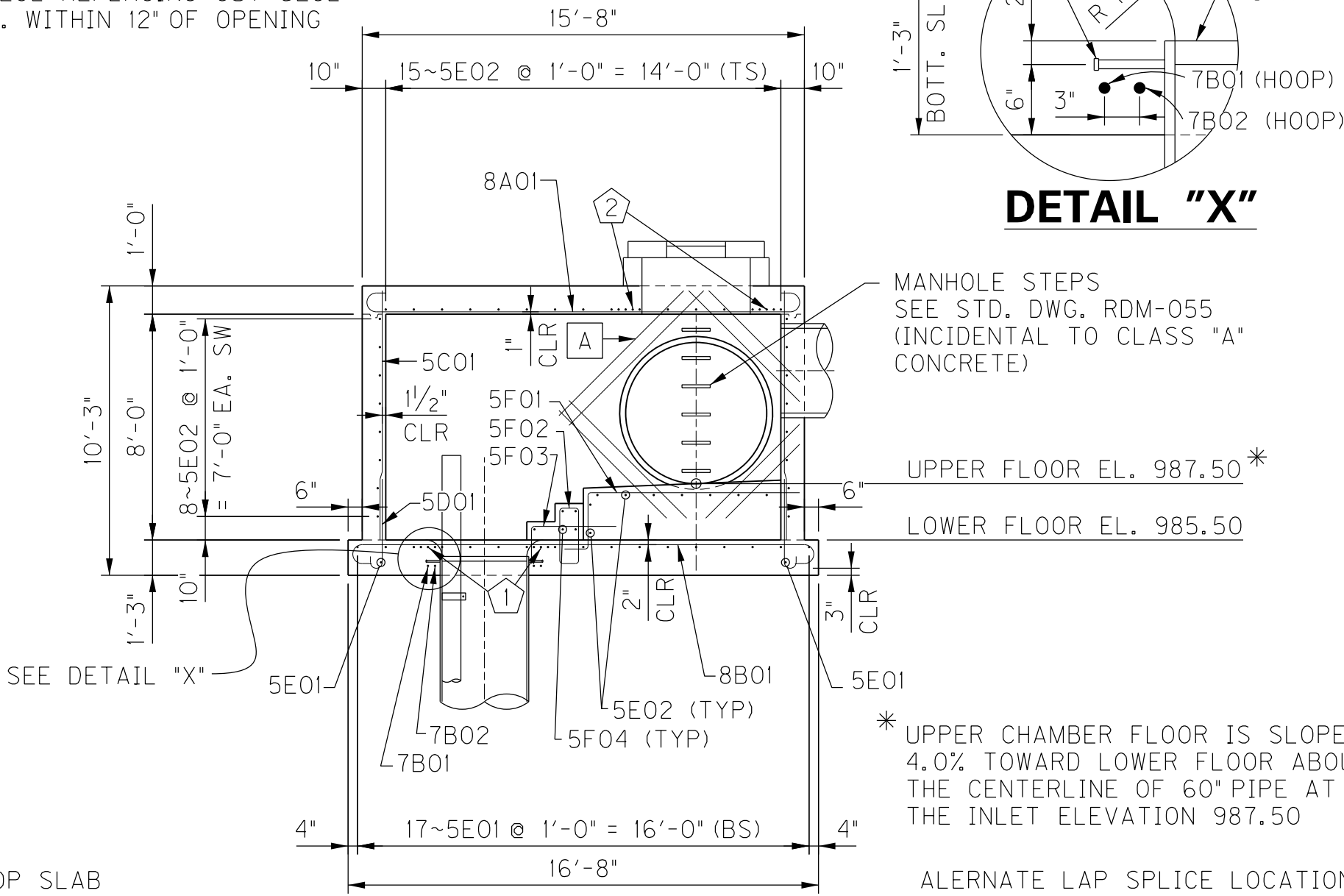
4 3~8A02 SPA. BETWEEN 8A01 (BEGINNING 2" FROM MANHOLE OPENING)

SECTION "B"

BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S09

1 3~5E02 SPA. BETWEEN 5E01 AND DROP SHAFT (TYP)

2 5~5E02 REPLACING CUT 5E02 SPA. WITHIN 12" OF OPENING



DETAIL "X"

MANHOLE STEPS
SEE STD. DWG. RDM-055
(INCIDENTAL TO CLASS "A" CONCRETE)

* UPPER CHAMBER FLOOR IS SLOPED 4.0% TOWARD LOWER FLOOR ABOUT THE CENTERLINE OF 60" PIPE AT THE INLET ELEVATION 987.50

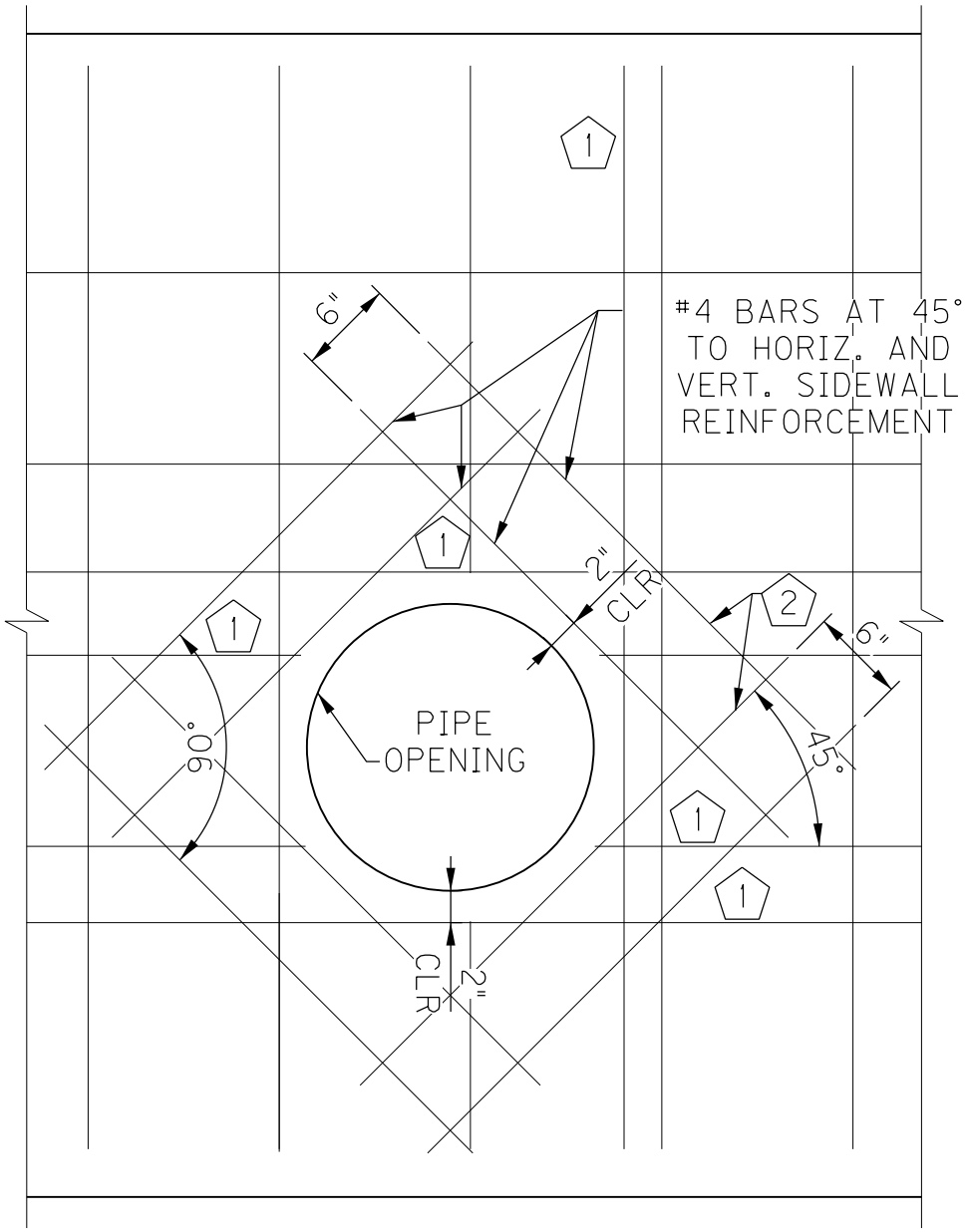
TS - TOP SLAB
BS - BOTTOM SLAB
SW - SIDEWALL

ALERNATE LAP SPLICE LOCATIONS

A SEE DETAIL FOR ADDITIONAL REINFORCEMENT AT PIPE OPENING

SECTION "A"

BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S10



1 WHERE A SIDEWALL PIPE OPENING CONFLICTS WITH REINFORCEMENT, PLACE THE DETAILED REINFORCEMENT IN THE LOCATION AS SHOWN IN THE PLANS AND TRIM THE CONFLICTING BARS TO WITHIN 2" CLEAR OF THE FACE OF THE CONCRETE AT THE PIPE OPENING. ADDITIONAL REINFORCEMENT OF THE SAME SIZE, AND SHAPE AS THE TRIMMED REINFORCEMENT SHALL BE PLACED NEAR THE HOLE AS SHOWN. PLACE THIS ADDITIONAL REINFORCEMENT WITHIN 2" CLEAR OF THE NEAREST FACE OF THE CONCRETE AT THE PIPE OPENING. IF MORE THAN 1 REINFORCING BAR MUST BE PLACED ON THE SAME SIDE OF A PIPE OPENING, SPACE THE ADDITIONAL REINFORCEMENT AT NO LESS THAN 1.5" CLEAR BETWEEN BARS.

2 8~ ADDITIONAL #4 REINFORCING BARS SHALL BE 2'-0" (MIN.) LONGER THAN DIAMETER OF PIPE OPENING AND CENTERED ON OPENING AS SHOWN.

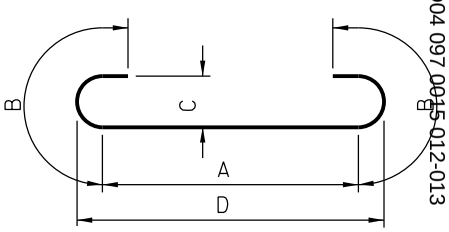
ALL LABOR AND MATERIALS REQUIRED TO COMPLETE A PIPE OPENING INCLUDING ADDITIONAL REINFORCEMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "STEEL REINFORCEMENT."

ADDITIONAL REINFORCING FOR PIPE OPENINGS

BLACK GOLD BLVD. DRAINAGE RETROFITS	ITEM NO. 10-182	COUNTY OF PERRY	SHEET NO. S11

BILL OF REINFORCEMENT

MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	a	b	c	d	e
8A01	1	67	# 8	17'-6"	TOP SLAB	14'-8"	1'-5"	8"	15'-4"	
8A02	1	3	# 8	17'-6"	TOP SLAB	14'-8"	1'-5"	8"	15'-4"	
8B01	1	71	# 8	18'-6"	BOTT SLAB	15'-8"	1'-5"	8"	16'-4"	
8B02	1	30	# 8	18'-6"	BOTT SLAB	15'-8"	1'-5"	8"	16'-4"	
5C01	STR.	98	# 5	8'-10"	SIDEWALLS					
5D01	4	98	# 5	3'-10"	SIDEWALLS	2'-11 1/2"	10"	5"	3'-2"	
5E01	STR.	19	# 5	35'-4"	BOTT SLAB					
5E02	STR.	51	# 5	34'-4"	TS/SIDEWALLS					
5E03	STR.	18	# 5	15'-4"	END WALLS					
7B01	28	4	# 7	13'-9"	CHAMBER FLOOR	4'-0"	1'-2"			
7B02	28	4	# 7	12'-2"	CHAMBER FLOOR	3'-6"	1'-2"			
5F01	21	33	# 5	10'-4"	CHAMBER FLOOR	10"	2'-0"	7'-6"		
5F02	14	4	# 5	6'-6"	STEPS	2'-1"	8"	10"		
5F03	5	4	# 5	4'-5"	STEPS	3'-0"	1'-5"			
5F04	STR.	5	# 5	4'-0"	STEPS					
4P01	STR.	40	# 4	5'-0"	PIPE OPENING					
4P02	STR.	8	# 4	6'-0"	PIPE OPENING					
4P03	STR.	8	# 4	7'-0"	PIPE OPENING					



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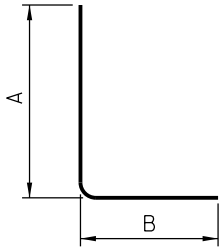

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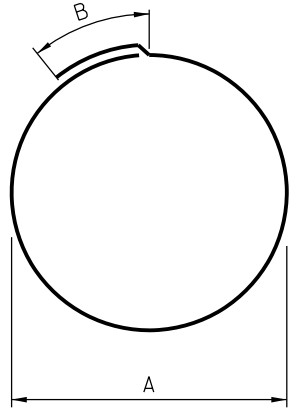

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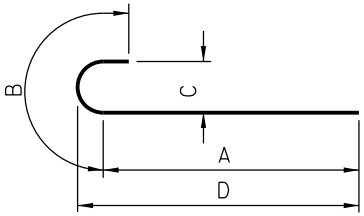

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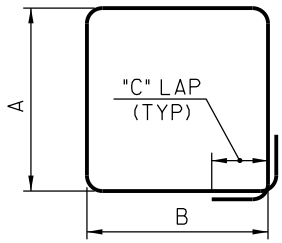

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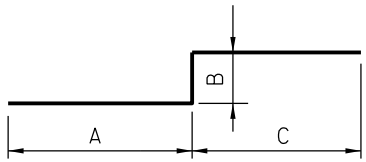

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